

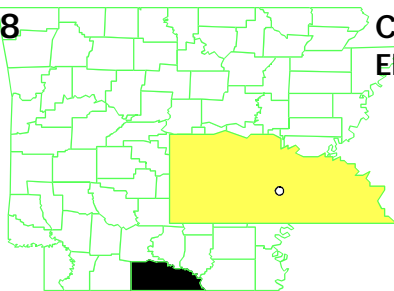
POPILE, INC.

EPA ID# ARD008052508

EPA REGION 6

CONGRESSIONAL DISTRICT 4

El Dorado, Union County, Arkansas



Updated: 08/7/00

Site Description

Location: ! Union County, about 3/4 mile south of El Dorado City Limits.

Population: ! 25,000

Setting: ! No drinking water wells within 1/2 mile of the site.
 ! Residential property on two sides; industrial/commercial properties on the other two sides.
 ! Starting in 1976, three surface impoundments were used as part of waste water treatment process.

Hydrology: ! Site drainage enters Bayou deLoutre.
 ! Shallow groundwater within the county used primarily for livestock watering.
 ! Wells in the El Dorado Aquifer located more than 3 miles from the site provides drinking water to more than 26,000 residents.

Current Site Strategy

C The objective of this site cleanup is to protect human health and the environment by controlling the migration of shallow groundwater contaminants so as to reduce and/or eliminate the potential of contaminating deeper aquifers, and if possible restore the shallow groundwater to a potential future beneficial use. The plan was to bioremediate contaminated soils so that they do not leach contaminants into the groundwater and to bioremediate groundwater in place. USEPA and the U.S. Army Corps of Engineers (USACE) conducted studies to determine the how successful soil and groundwater bioremediation can be. EPA is implemented the remedial action through USACE Total Environmental Restoration Contract (TERC) delivery orders.

Wastes and Volumes

! The principal pollutants at the Popile Superfund site include creosote and pentachlorophenol (PCP) associated with wood treatment operations.

Site Assessment and Ranking

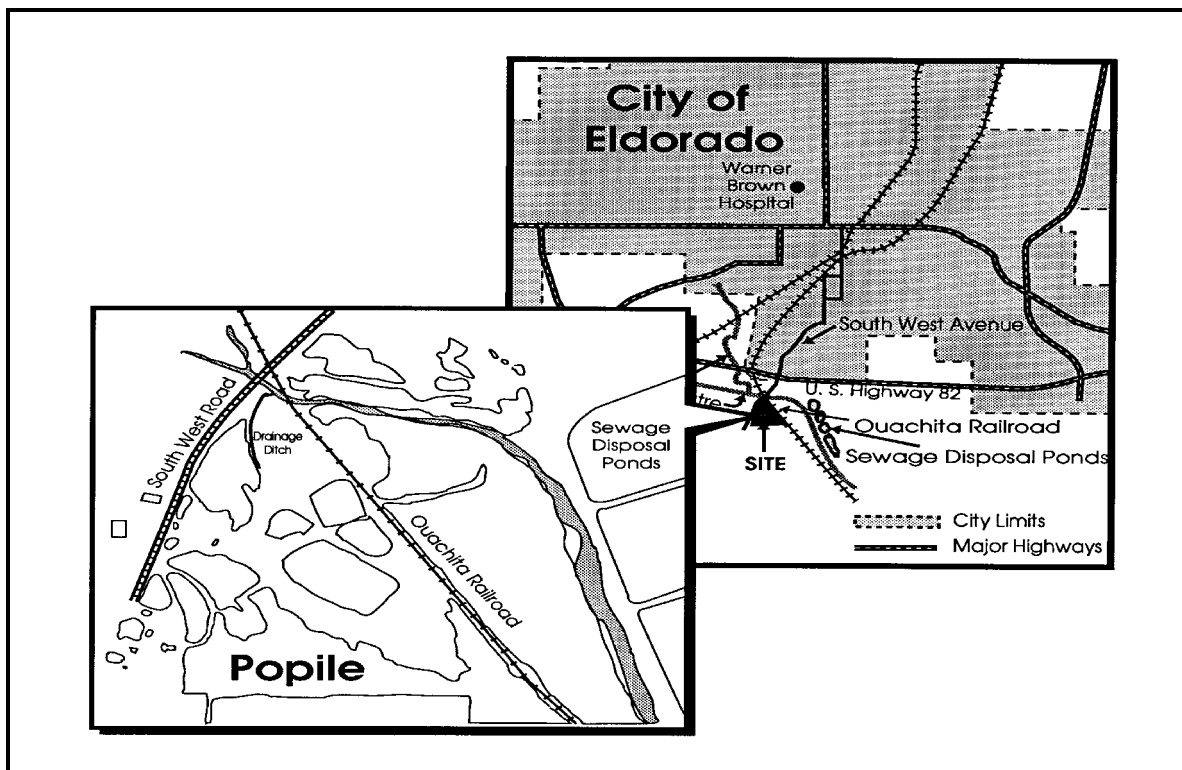
NPL LISTING HISTORY

Proposed Date: 02/04/92

Final Date: 10/14/92

NPL Update: No. 12

Site Map and Diagram



The Remediation Process

! Site History:

- " Popile, Inc., is a 40-acre site on the east side of Southfield Road 1/4 of a mile before its intersection with U.S. Highway 82.
- " The property is bordered by the Ouachita Railroad on the east, Southfield Road to the north and west and Bayou de Loutre, a perennial creek, on the north. A woodland area is south, up gradient to the site, and wetlands are 1 mile downstream, extending about 14 stream miles. The Bayou de Loutre, a commonly used fishing area, and a downstream boat ramp receive drainage from the site.
- " In 1947, El Dorado Creosote Co., the parent company of Popile, Inc., began treating wood at the 40-acre property using pentachlorophenol (PCP) and creosote. El Dorado Pole & Piling Company purchased the property in 1956 and began using three surface impoundments as part of the waste water treatment process in 1976. The wood treatment operations ceased in July 1982.
- " In September 1982, Popile bought approximately 7 1/2 acres of the property including the surface impoundments and a large area known as the Salt Flat. In 1984, Popile closed the three impoundments.
- " The EPA conducted an initial analysis in October 1989, which identified contaminants in the on-site soil.
- " An EPA removal action started September 5, 1990 and was completed August 1, 1991. Removal activities included stabilizing contaminated soils and sludge, grading and shaping the site surface for erosion control, capping a temporary impoundment area, installing steel culverts in a drainage area, topsoil and seed entire site, as well as installing security fence, and post warning signs.
- " Over 66,000 Cubic Yards of contaminated soil were placed in a temporary holding cell on site.

! Health Considerations:

- " Direct contact with soils.
- " Ingestion of ground or surface water.

! Other Environmental Risks:

- " Sediments in Bayou deLoutre contain low level concentrations of various polyaromatic hydrocarbons (PAHs).

Record of Decision

Signed: February 20, 1993

! The following remedies will protect humans from unhealthy exposures to contaminated soil and groundwater.

" Ground Water:

- In situ treatment of contaminated ground water and extraction of free phase wood treating fluids.
- Off site disposal of wood treating fluids

" Soil Treatment:

- Onsite biological land treatment of contaminated soils and sludge.

! There was significant state involvement choosing the remedies.

! Onsite incineration strongly considered but rejected by the state and local community.

Other Remedies Considered

1. "No Action"
2. Institutional Controls
3. Stabilization
4. RCRA Cap

Reason Not Chosen

Not Protective remedial objectives
Not Protective
Not Protective in Long Term
Not Protective in Long Term

Community Involvement

- ! Community Involvement Plan: Developed 06/92
- ! Open houses and workshops: 02/92, 07/92, 08/92, 09/92, 5/93, 9/97
- ! Original Proposed Plan Fact Sheet and Public Meeting: 06/92, 07/92.
- ! Original ROD Fact Sheet: 02/93.
- ! Milestone Fact Sheets: 06/92, 02/93, 5/93
- ! Citizens on site mailing list: 172
- ! Constituency Interest: Low to medium.
- ! Site Repository: Barton Public Library

Technical Assistance Grant

- ! Availability Notice: 06/92
- ! Letters of Intent Received: None
- ! Grant Award: N/A

Contacts, Fiscal and Cost Recovery Management

! Contacts

- " **Remedial Project Manager (EPA):** Shawn Ghose (214) 665-86782 Mail Code: 6SF-AP
- " **State Contact:** Kin Siew, ADEQ, (501) 682-0855
- " **Community Involvement (EPA):** Shawn Ghose (214) 665-86782 Mail Code: 6SF-AP
- " **Attorney (EPA):** Michael Boydston, 214/665-7376, Mail Code 6SF-DL
- " **State Coordinator (EPA):** Karen Bond, 214/665-6682, Mail Code. 6SF-AP
- " **Prime Contractor:** Morrison-Knudsen

! Fiscal: Federal Fund Lead Remedial Action

- " Arkansas Department of Pollution Control and Ecology (ADPC&E) and USEPA entered into a contract on September 20, 1994.
 - The contract provides for ADPC&E to reimburse USEPA for 10 percent of remedial action costs
 - The contract has three phases:
 - # Phase I years 1 - 5, \$14,000,000 facility construction and begin cleanup
 - # Phase II years 6 - 10, \$5,000,000 complete soil cleanup and continue groundwater cleanup
 - # Phase III years 11 - 30, \$3,000,000 complete groundwater cleanup
- " USEPA and USACE entered into a \$25,000,000 interagency agreement on September 27, 1994. The agreement provides for USACE to construct and operate the remedial action.
- " USACE negotiated the first delivery TERC order in November 1997 to implement groundwater monitoring, develop site infrastructure and cap a portion of the contamination

Present Status and Issues

! Current

- " EPA had determined that soil microbial activity can remediate soils in the old process area but can not remediate the fly ash stabilized soils in the soil cell.
- " USACE prepared a plan for identifying the specific parameters required for designing the full scale old process area soils remediation. The New Orleans USACE District was to act as the construction agent for the remedial action.
 - As a part of the process to implement the remedies of the ROD, the Corps of Engineers conducted subsurface investigation followed by ground water flow and contaminant transport modeling. In addition USACE Waterways Experiment Station (WES) conducted microsacle

and mesoscale treatability studies of treating PCP and PAH contaminated soils by landfarming.

Results of bioremediation studies(between 1997 and late 1999) of contaminated soil from the impoundments indicate that bioremediation may not work to reduce PCP and PAHs in a reasonable time. Also extensive monitor wells, boreholes and piezometer readings in mid 1998 indicate no DNAPLs, and very little movement of the contaminant plume beyond the impoundment area. The off-site area is free of dissolved PCP concentration in the shallow groundwater.

! Accomplished

- " Winter '97 - 98 TERC contractor to mobilize on site.
- Winter 98 Groundwater modeling using data derived from monitor wells, boreholes and sediment sampling completed in July-Oct, 1998. In Spring of 2000 contractors for USACE completed the TERC project by installing a Secondary Source area Clay Cap towards the northwest of the site and removal of a UST tank from the southeastern part.

Schedule

! CERCLIS 3 Schedule Milestones

- " Remedial Action
 - Award Delivery Order Oct 1997
 -
 - Preliminary Close Out Report 2003/2Q
 - Close Out Report 2030/3Q
- Ammended ROD 2001/1Q
- " Next 5Yr Remedy Assessment Jan 2003
- " Partial NPL Deletion 2001/2Q
- " Operation and Maintenance Begins 2028/2Q
- " NPL Deletion Jun 2028

Benefits

! Treatment Goal

- " Treat soil and groundwater to prevent contamination from migrating off site. Creosote contamination clean up standard is Benzo(a)Pyrene equivalents. Benzo(a)Pyrene was chosen as the cleanup standard to measure cleanup because it is one of the most carcinogenic compounds in creosote.

- | | | |
|---------------|----------------------------|-----------------------------|
| " Soil | Benzo(a)Pyrene equivalents | 3 ppm |
| | PCP | 5 parts per million (ppm) |
| " Groundwater | Benzo(a)Pyrene equivalents | 0.2 parts per billion (ppb) |

Treatment Goals may be modified based on results of recent study and different use scenario (nonresidential). Results of mid 1998-2000 subsurface investigations and groundwater model study by Corps of Engineers indicate no migration of contaminants off-site, and no threat to Bayou de Loutre.